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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,096	09/09/2003	Bamdad Bahar	0769-4624US5	9845

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EXAMINER
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MARTIN, ANGELA J

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 02/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/657,096

Applicant(s)

BAHAR ET AL.

Examiner

Angela J. Martin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 17-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 18-26 is/are rejected.
- 7) ☒ Claim(s) 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/28/05.
- 4) ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED DESCRIPTION

This Office Action is responsive to the Amendment filed on August 19, 2005. The Applicant has amended claims 1, 10, 18, 19, 21-23; has canceled claim 16; and has added new claims 24-26. However, a new rejection is presented for the following reasons of record.

#### ***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 5 of U.S. Patent No. 6,242,135 B1.

Although the conflicting claims are not identical, they are not patentably distinct from each other because '135 claims "at least one metal oxide" while the application claims "metal" or "inorganic particulate" or "combination thereof" which could be interpreted as a metal oxide.

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3. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

4. Claims 1 and 17 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 1 of prior U.S. Patent No. 6,635,384 B2. This is a double patenting rejection. Claim 17, which is dependent on claim 15, which is further dependent on claim 1, claims the same invention as claim 1 of U.S. Pat. No. 6,635,384 B2.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2, 12, 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kato et al., WO 91/14021 (abstract).

Rejection of claims 1, 2, 12, 20 drawn to a polymeric membrane.

Kato et al., teach a polymeric membrane comprising a polymeric sheet comprising polymer and having a porous structure, the sheet having distributed in the

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polymer: inorganic particulate, metal, organic polymer, or a combination, and the porous structure is at least partially filled with an ion-exchange resin to provide ionic conductance (abstract). It teaches a finely divided powder (abstract). It teaches the sheet has metal distributed therein (abstract).

Thus, the claims are anticipated.

***Claim Rejections - 35 USC § 102/103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 3, 8, 10-15, 17-26 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ohashi et al., EP 0503147 A1.

Ohashi et al., teach a polymeric membrane having a porous structure, the sheet having distributed in the polymer a metal (p. 2, lines 37-41). It teaches the polymeric sheet is porous expanded PTFE (p. 2, lines 57-58; p. 3, lines 2-3). It teaches the sheet has a precious metal, such as platinum (p. 7, lines 19-28). It teaches inorganic particulate or metal distributed on the polymeric sheet (p. 2, lines 35-45). It teaches an organic polymer (p. 3, lines 20-42). It teaches a composite membrane comprising a polymeric sheet having a thickness of less than 50 microns (p. 3, lines 2-4). It teaches a metal salt in the polymer composition (p. 7, lines 36-57). It teaches polymeric sheet has a porosity of 50-95% (p. 3, lines 2-5). It teaches the ion exchange resin is fluorinated (p.

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2, lines 35-45). It teaches the polymeric gel comprises a polymer with a cross-linked structure (p. 3, lines 20-24; p. 8, lines 52-53).

Thus, the claims are anticipated.

However, if the claims are not anticipated, they are obvious because although it does not teach a porous structure at least partially filled with an ion-exchange resin to provide ionic conductance, the fluorinated resin would inherently provide ionic conductance and it is well known in the art to use the membrane between fuel cell electrodes. In addition, although the prior art of record does not recite the steady state current conditions, one of ordinary skill in the art would provide ideal conditions for the performance of the battery.

9. Claims 3, 6-9 rejected under 35 U.S.C. 103(a) as being unpatentable over Ohashi et al., EP 0503147 A1, in view of Laconti et al., GB 2009788 A.

Ohashi et al., teach a polymeric membrane as described above.

Laconti et al., teach the polymeric sheet has a precious metal (p. 3, lines 24-27). It teaches platinum in the sheet and supported on substrate (p. 3, lines 24-27). It teaches the sheet has titania (p. 4, lines 61-63). It teaches the sheet has carbon (p. 4, lines 6-13).

Thus, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because although the prior art of record does not teach metal salts, it does teach metals which can include metal salts.

10. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohashi et al., EP 0503147 A1, in view of Koslow, U.S. Pat. No. 5,147,722.

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Ohashi et al., teach a polymeric membrane as described above.

Koslow teaches a polymeric membrane comprising ion-exchange resin (col. 25, lines 15-35) wherein the polymeric sheet has silica or fumed silica distributed therein (col. 16, lines 65-67 and col. 17, lines 1-7).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the teachings of Koslow into the teachings of Ohashi et al., because Koslow teaches that the addition of fumed silica can alter the stiffness of the membrane and improve the strength of the structure.

### ***Response to Arguments***

11. Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela J. Martin whose telephone number is 571-272-1288. The examiner can normally be reached on Monday-Friday from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



AJM